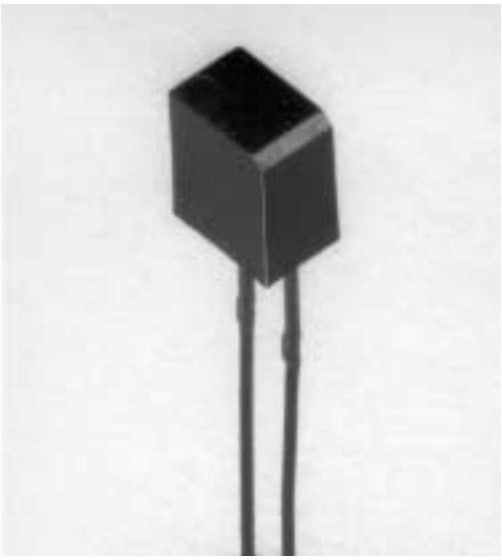
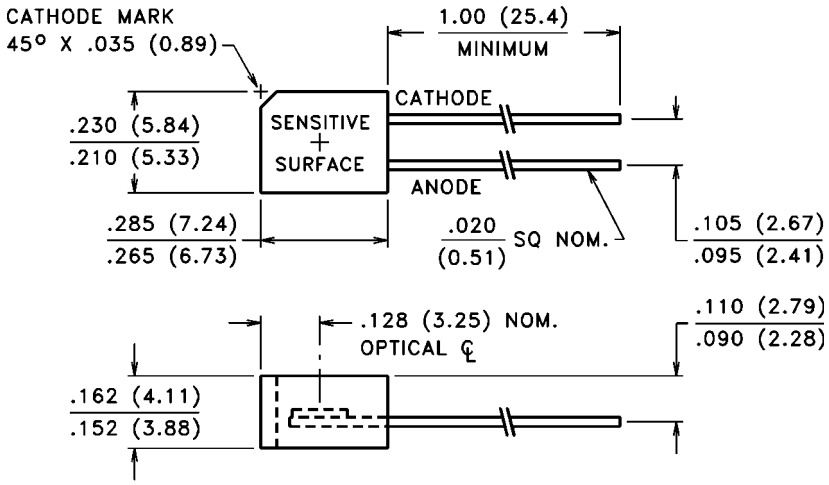
VTP Process Photodiodes

VTP100



PACKAGE DIMENSIONS inch (mm)



CASE 52 FLAT SIDELOOKER
CHIP ACTIVE AREA: .012 in^2 (7.45 mm^2)

PRODUCT DESCRIPTION

Planar silicon photodiode in a molded plastic sidelooker package. The package material is infrared transmitting (blocking visible light). These diodes exhibit low dark current and fast speed of response.

ABSOLUTE MAXIMUM RATINGS

Storage Temperature:	-40°C to 100°C
Operating Temperature:	-40°C to 100°C

ELECTRO-OPTICAL CHARACTERISTICS @ 25°C (See also VTP curves, page 46)

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	VTP100			UNITS
			Min.	Typ.	Max.	
I_{SC}	Short Circuit Current	H = 100 fc, 2850 K	35	55		µA
TC I_{SC}	I_{SC} Temperature Coefficient	2850 K		.24		%/°C
V_{OC}	Open Circuit Voltage	H = 100 fc, 2850 K		300		mV
TC V_{OC}	V_{OC} Temperature Coefficient	2850 K		-2.0		mV/°C
I_D	Dark Current	H = 0, VR = 10 V			30	nA
R_{SH}	Shunt Resistance	H = 0, V = 10 mV		.25		GΩ
C_J	Junction Capacitance	H = 0, V = 3 V			50	pF
Re	Responsivity	940 nm	.036	.047		A/(W/cm^2)
S_R	Sensitivity	@ Peak		.50		A/W
λ_{range}	Spectral Application Range		725		1150	nm
λ_p	Spectral Response - Peak			925		nm
V_{BR}	Breakdown Voltage		30	140		V
$\theta_{1/2}$	Angular Resp. - 50% Resp. Pt.			±70		Degrees
NEP	Noise Equivalent Power			2.5 x 10^{-14} (Typ.)		$W/\sqrt{Hz}$
D*	Specific Detectivity			1.1 x 10^{13} (Typ.)		$cm\sqrt{Hz}$ / W

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